**Unit 8 Map (Classical Genetics)**

Ms. Ottolini, AP Biology

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| **Topic** | **Learning Target** | **Where did I learn this?**  (What resources should I use to study?) | **How well do I know this?**  (scale of 1 to 3, with 3 indicating a high level of understanding) |
| The Basics of Mendelian Genetics | 1. You will be able to use basic genetics vocabulary and analyze simple monohybrid crosses (Punnett squares). |  |  |
| 2. You will be able to analyze monohybrid crosses involving incomplete dominance and codominance. |  |  |
| 3. You will be able to analyze monohybrid crosses involving sex linkage. |  |  |
| 4. You will be able to analyze dihybrid crosses. |  |  |
| Human Genetics | 5. You will be able to analyze Punnett squares involving multiple alleles (ex: blood types). |  |  |
| 6. You will be able to describe patterns of non-Mendelian inheritance (ex: polygenic inheritance, pleiotropy, extranuclear DNA) |  |  |
| 7. You will be able to evaluate the role of genes and the environment on phenotype. |  |  |
| 8. You will be able to create and analyze pedigrees showing the inheritance of traits across several generations. |  |  |
| Gene Linkage | 9. You will be able to determine if two genes are linked (found on the same chromosome) based on Punnett square results and recombination frequencies. |  |  |
| 10. You will be able to construct a linkage map showing the locations of genes on a chromosome based on recombination frequencies (the frequency of two genes ending up on different chromosomes due to crossing over). |  |  |